

COMMUNICATION
TO THE
BOARD OF ALDERMEN
OF THE
CITY OF NEW YORK,
BY THE
PRESIDENT OF THE TRUSTEES
OF THE
NEW YORK AND BROOKLYN BRIDGE,

MADE FEB. 3, 1876.

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THE TRUSTEES OF THE NEW YORK AND BROOKLYN BRIDGE, }
OFFICE, NO. 21 WATER STREET, }

BROOKLYN, Feb. 3, 1876.

HON. SAMUEL LEWIS, *President of the Board of Aldermen of the City of New York :*

SIR :

I have the honor to transmit herewith a communication, in compliance with the resolution of the Board of Aldermen of the 20th of January ult.

Yours respectfully,

HEN: C. MURPHY,
President.



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COMMUNICATION.

To the Honorable the Board of Aldermen of the City of New York :

I have the honor to acknowledge the receipt of your resolution of the 20th of January last, as follows :

Resolved, That the President of the New York and Brooklyn Bridge Company be and he is hereby requested to report to this Board, at his earliest convenience, a statement showing in detail the names of the stockholders or subscribers to the stock of the New York Bridge Company, with the amount subscribed and paid by each, whether individuals or corporations, previous to or at the time of the passage of chapter 300, Laws of 1875; the amount paid or refunded to each stockholder, as provided in section 2. of chapter 601, Laws of 1874, re-enacted by chapter 300, of Laws of 1875; the original estimated cost of the bridge; the amount already expended by the original Bridge Company, and as at present constituted, to be given separately: the estimated amount now required to complete the work; when, if ever, the Common Council of this city accepted the provisions of section 3, of chapter 601, Laws of 1874; the amount, if any, refunded to this city in its capacity as a stockholder, in the original Bridge Company, to the amount of \$1,500,000; and such other information in connection with the enterprise as he may deem of interest to the public, or of use to this Common Council, which is now called upon to authorize the issue of bonds of the city of New York, to the amount of \$2,666,666.66, in addition to the vast sums already contributed to the undertaking, as it is desirable that all the information, possible to obtain, should be furnished to guide this Common Council to an intelligent comprehension of all the

facts and figures relating to the measure, and that may seem to justify the issue of the bonds of this city to the amount above-named, in aid of the present Bridge Company, or the completion of the bridge, under its present management.

The Company, to whose President this inquiry is addressed, is no longer in existence. It was dissolved by operation of the statutes referred to in the resolution, and consequently there is no such officer. But, as the resolution has been delivered to me, the President of the Board of Trustees, now in charge of the work, I presume it was so intended, and, therefore, give in that capacity, the information desired.

AS TO THE STOCKHOLDERS OF THE BRIDGE COMPANY.

The schedule hereto annexed, marked A., will, as far as practicable, exhibit the names of the stockholders of the New York Bridge Company, with the amount subscribed and paid by each, whether individuals or corporations, previous to, or at the time of the passage of chapter 300, of the Laws of 1875; and, also, the amount refunded to each stockholder as provided in section 2 of chapter 601 of the Laws of 1874. In consequence of the transfers of stock made from time to time, two tables are given for this purpose: one showing the original subscribers with the amount subscribed, and the other, the stockholders at the the time of the passage of the law of 1875, and the amount paid on account of the stock held by them at that time.

In this connection it may be stated, as requested, that no amount has been refunded to the City of New York in its capacity as a stockholder in the Company.

THE ORIGINAL ESTIMATE OF THE COST OF THE BRIDGE.

The first estimate was made in 1867, by the late John A. Roebling, Esq., its designer and first engineer, for a

structure 80 feet wide, and 130 feet above high water, exclusive of the land, as follows :

Suspended superstructure.....	\$2,787,972
Anchorage, including excavation, plates and chains	795,424
Foundation of Brooklyn tower.....	355,400
Foundation of New York tower—	
Pile foundation.....	\$399,087 00
Rock foundation.....	727,294 32
The latter was adopted.....	727,294
Two towers.....	1,409,820
Approaches.....	742,516
Engines and machinery.....	40,000
Toll-houses and gateways.....	20,000
Engineering.....	150,000
Contingencies.....	299,781
To the foregoing sums, amounting to \$7,328,207.32, was added eight per cent. for additional width to 85 feet, and height to 135 feet, as required for the latter, before commencing the bridge, by the Secretary of War, under the Act of Congress of March 3, 1869.....	
	586,250
Total for structure.....	\$7,914,457

A detailed estimate of the cost of the land was made for the first time under the direction of the Executive Committee of the Company in 1873. For that purpose a map was prepared by the Engineering department of all the lands not then taken—not only those necessary for the foundations to be built and the approaches, but, also, those over which the bridge will pass, showing the property of each owner separately, together with the parts of such lots as extended outside of the lines of the bridge, and it would be for the interest of all parties to take.

An abstract was then taken of the valuations of these different pieces of land from the books of the City Assessors of New York and Brooklyn for the year 1873, and where only a part of a lot was taken a valuation was placed upon it bearing the same ratio to the assessed valuation of the whole lot as the area of the part taken bore to the area of the whole. An estimate was then made of the actual value of each parcel by taking twice

and a half the assessed valuation of the land required in New York, and twice the assessed valuation of that in Brooklyn.

The following was the result :

For land in New York then yet to be taken.....	\$2,401,978.00
For land in Brooklyn.....	520,394.00
Making in both cities.....	\$2,922,372.00
There had been taken previously land not embraced in the foregoing amount, costing.....	735,478.83
Making the total estimate of land required for the purpose of the bridge.....	\$3,657,850.83
Which sum, added to \$7,914,457 for the structure, made the entire cost of the bridge as first esti- mated	\$11,572,287.00

THE AMOUNT ALREADY EXPENDED.

There has been expended up to the 1st of January, 1876, for land.....	\$1,056,976.61
For construction.....	4,897,933.02
In all.....	\$5,954,909.63
Of which there was expended by the original Bridge Company up to the 17th of February, 1875, when the Company passed under the exclusive direction of the two cities, by virtue of the act of June 5, 1874.....	\$4,869,153.20
And by the said Company as so constituted until the 9th of June, 1875, when the bridge became the pro- perty of the two cities.....	\$519,492.86
Total by the Bridge Company.....	\$5,388,646.06
By the Trustees of the two cities from June 9th, 1875, to the 1st of January, 1876, exclusive of the liabili- ties of the Bridge Company, paid by the Trustees and included in the above mentioned expenditures of the Company.....	\$566,263.57
Total expenditures, January 1, 1876, as before....	\$5,954,909.63

THE ESTIMATED AMOUNT NOW REQUIRED TO COMPLETE THE BRIDGE.

This will appear by the following estimate just made by Col. W. A. Roebling, who succeeded his father as Chief Engineer, upon the death of the latter, and has now the direction of the work.

ESTIMATE JANUARY, 1876.

Amount required to complete Brooklyn tower.....	\$7,000 00
Masonry required to complete New York tower, 3,800 cubic yards at \$36.....	136,800 00
Cost of completing Brooklyn anchorage.....	62,482 00
Cost of completing New York anchorage.....	248,249 00
Bars and castings for anchorages.....	4,856 00
Anchor chains and pins for Brooklyn anchorage.....	5,568 00
Anchor chains and pins for New York anchorage.....	32,136 00
Suspended superstructure as per original estimate, in- cluding the 8 per cent. for increased size.....	3,011,010 00
Approaches.....	742,516 00
Toll-houses and gateways.....	20,000 00
Engineering	140,000 00
Contingencies.....	100,000 00
Total required to complete bridge and approaches in- dependently of the land.....	4,510,617 00
And for the land yet to be taken, according to the mode of estimating its cost before mentioned.....	2,706,413 00
Making in all for land and structure complete	7,217,030 00

WHOLE COST OF THE BRIDGE AS NOW ESTIMATED.

Amount already expended	\$5,954,910 00
Existing liabilities for materials deliv- ered and charges, as per schedule B.	92,913 00
	\$6,047,823 00
Less cash and materials on hand.....	145,278 00
Whole amount expended.....	\$5,902,545 00
To be expended as above.....	7,217,030 00
Total.....	\$13,119,575 00

From this amount a large deduction is to be made on account of the land lying under the bridge. It has been deemed proper to take all such land outright, although it would be only partially damaged by the passage of the bridge over it, and its full value has therefore been included in the foregoing estimate. It lies between the river and the points in either city where the structure leaves a clear space of fifteen feet between its under side and the ground, and is all capable of more or less utilization. The cost of this land in the estimate is \$2,740,416. Should forty per cent. only of its cost be realized on a sale for the limited purposes to which its use should be restricted, there would be a deduction from the total estimated cost of \$1,096,666, leaving the net cost of the entire work \$12,023,409.

The act of 1875 provides, however, that the interest on the bonds for the \$8,000,000, to be issued by the two cities, should be paid by the trustees out of the moneys to be received by them. The effect of this is that no payment of interest on their bonds will be made by the cities for three years; but the cost of the bridge will be enhanced \$1,067,500, being the amount of the interest so to be paid for them by the trustees.

The difference between the original estimates and those now made for the work, complete, and ready for use is \$1,441,722, or about $12\frac{1}{2}$ per cent. on the whole cost, and is entirely due to the actual increased cost of the work already done, or nearly done, owing partly to increased depth and size of the towers and anchorages, and increased price of materials and labor used upon them. This increase will have been incurred on those different portions of the work in the following amounts:

Tower foundations.....,.....	\$240,005 56
Tower masonry.....	681,605 30
Anchorages.....	380,652 98
Total.....	<u>\$1,302,263 84</u>

Brought forward.....	\$1,302,263 84
To which is to be added for increased ex- penses of Engineering and Machinery...	\$234,870 94
And for office salaries and expenses, super- intendence and general administration of the work for six years, and upwards, not included in the estimate	189,351 22
	\$424,222 16
Making in all.....	\$1,726,486 00
And from this amount is to be deducted a reduction on the other items of estimate of.....	\$284,764 76
Making the net increase as stated above.....	\$1,441,721 24

The increased cost of the foundations of the towers was owing: 1. To the rocky nature of the excavation on the Brooklyn side, by which it was increased from \$1 to \$6.40 per yard. 2. The necessity of providing against fire in the caissons, the danger of which, from compressed air, was previously unknown, and, 3. The high price of labor in the caissons being \$2.75 for four hours work, causing an increase on that account alone of over \$100,000.

The masonry in the towers was actually increased 12,693 yards beyond the original estimate, by reason of greater depth and width of the New York tower, independently of the allowance of eight per cent. for increased height, making, at \$25.88 per yard, \$328,488.50. The actual cost of the residue being 72,369 yards, at the same rate per yard, was \$4.88 per yard more than the original estimate, or in the aggregate \$353,116.80—the two items amounting to \$681,605.30.

The cost of the anchorages was enhanced by an increased size of both, judged proper by the present engineer, and the greater depth of the New York foundation, owing to the marshy character of the substratum which had to be removed, and by a change in the plan of the anchor plates and chains.

These explanatory details are given in order to show that the increase has been owing to increased solidity and

strength given to the structure, and the novelty of the foundations, which are twenty times larger than any pneumatic foundations ever put down before, and consequently without any experience as to the danger to men working in compressed air to a depth of seventy-eight feet below the surface of the river, or to the greater liability to combustion in the caissons from the same circumstance.

MONEYS RECEIVED UP TO JANUARY 1, 1876.

From the City of Brooklyn.....	\$3,965,000
From the City of New York.....	1,500,000
From private stockholders of the Company.....	349,800
For interest on deposits, rents, wharfage, material sold, etc.....	146,645
	\$5,961,445

THE ACCEPTANCE OF THE PROVISIONS OF THE ACT OF 1874, AND THE REORGANIZATION OF THE BRIDGE COMPANY.

By the Law of June 5, 1874, it is enacted that when either of the cities of New York and Brooklyn should, by vote of its Common Council, accept the provisions of the third section of that act authorizing the issue of bonds of the cities to the amount of \$3,000,000, and the payment thereof to the Bridge Company, and the owners of two-thirds of the private stock of the Company should accept the provisions of the second section of the act, authorizing the purchase of the rights of any private stockholder in the Company, by a board of directors, to be appointed on behalf of the two cities, the board of directors of the Company should consist of twenty members, to be composed of the Mayors and Comptrollers of the two cities, by virtue of their offices, and eight persons to be appointed by the Mayor and Comptroller of New York,

with a like number to be appointed by the Mayor and Comptroller of Brooklyn. The Common Council of New York never voted to accept those provisions, but the Common Council of Brooklyn did vote to accept them on the 20th of August, 1874, and on the 28th day of September, 1874, the owners of two-thirds of the private stock of the Company accepted the provisions of the second section of the act, by an instrument in writing, duly recorded in the offices of the Registers of the City and County of New York, and of the County of Kings, respectively; by which action the provisions for the appointment of a new board of directors of the Company became operative, and the following persons were appointed such directors by the Mayor and Comptroller of the City of New York, viz.:

JAS. M. McLEAN,	JOHN RILEY,
LLOYD ASPINWALL,	CHAS. J. CANDA,
FRANCIS B. THURBER,	JAS. M. MOTLEY,
ABRAM S. HEWITT,	LAWRENCE TURNURE,

And by the Mayor and Comptroller of the City of Brooklyn, viz:

HENRY C. MURPHY,	DAVID M. STONE,
THOMAS CARROLL,	WILLIAM C. KINGSLEY,
JAMES S. T. STRANAHAN,	WILLIAM MARSHALL,
GEORGE L. NICHOLS,	SAMUEL BOOTH.

All of whom entered upon their duties on the seventeenth of February, 1875.

EXTINGUISHMENT OF THE RIGHTS OF THE PRIVATE STOCK-
HOLDERS, DISSOLUTION OF THE BRIDGE COMPANY,
AND THE BRIDGE MADE A PUBLIC WORK OF
THE TWO CITIES, TO BE ADMINISTERED
BY A BOARD OF TRUSTEES.

The new Board of Directors, in pursuance of the powers conferred upon them by the act of 1874, pur-

chased on the 24th day of May, 1875, the rights of all the private stockholders on the basis prescribed by the act, and as shown in the accompanying Schedule A, giving them the obligations of the Company, payable on the 24th of November last, which obligations are still outstanding; whereupon, the private stockholders were entirely retired from the Company.

By the act of May 14, 1875, chapter 300, of the Laws of that year, upon the retirement of the private stockholders, the Bridge Company was dissolved, and all its property and effects became vested in the two cities, and the bridge was declared by such dissolution to be a public work, to be constructed by the two cities—two-thirds of the expense thereof and of all the liabilities of the Company to be borne by the City of Brooklyn, and one-third by the City of New York. And it was further provided by the act that a Board of Trustees should be appointed, consisting, in connection with the Mayors and Comptrollers of the two cities, by virtue of their offices, of eight persons, to be appointed by the Mayor, Comptroller, and President of the Board of Aldermen of the City of New York, and a like number by the Mayor, Comptroller, and City Auditor of the City of Brooklyn, for the purpose of managing and constructing the bridge, with the obligation of paying all the debts and liabilities of the Company. The following persons were accordingly appointed trustees by the authorities of New York, viz.:

JAMES M. McLEAN,
LLOYD ASPINWALL,
FRANCIS B. THURBER,
ABRAM S. HEWITT,

JOHN RILEY,
CHAS. J. CANDA,
JAS. M. MOTLEY,
LAWRENCE TURNURE,

And the following by the authorities of Brooklyn:

HENRY C. MURPHY,
THOMAS CARROLL,
JAS. S. T. STRANAHAN,
WILLIAM C. KINGSLEY,

WILLIAM MARSHALL,
HENRY W. SLOCUM,
ISAAC VAN ANDEN,
WILLIAM B. LEONARD.

All of whom accepted the appointment, and entered upon its duties on the 9th of June, 1875. Since then Charles J. Canda, appointed one of the Commissioners of Rapid Transit in New York, has resigned, and his place has been filled by Jenkins Van Schaick, Esq., and the place of Isaac Van Anden, Esq., from Brooklyn, has become vacant by his death, and is not yet filled.

THE PROCEEDINGS OF THE TRUSTEES AND THEIR OUT- STANDING LIABILITIES.

The Trustees thus charged as a special public authority with the construction of the Bridge and payment of the debts and liabilities of the Company, were empowered by the act of 1875, before mentioned, to call from time to time upon the two cities, by request made to the Mayor and Comptroller thereof, respectively, for such sums as they should deem proper, in the proportions above mentioned, "not exceeding in all eight millions of dollars, and not exceeding one million of dollars in any one year from the City of New York, and two millions of dollars in any one year from the City of Brooklyn, until the Bridge should be completed and open for public travel, and the debts and liabilities incurred therefor should be fully paid;" to meet which the two cities were respectively authorized and required to issue bonds and pay the proceeds to the Trustees.

In accordance with their duties and powers the trustees, on the 9th of June, 1875, called upon the two cities, as required by the act, for an instalment of one million five hundred thousand dollars; one million thereof from the City of Brooklyn, and five hundred thousand from the City of New York, part of their respective quotas of the eight millions authorized by the act; and they proceeded with every diligence in the construction of the Bridge, but although the City of Brooklyn promptly complied with the requisition, the City of New York as yet

has not done so, and in consequence the Trustees have forborne to make any further call, and have been unable to discharge their obligations. In order to a correct understanding of the nature and extent of the outstanding liabilities of the Trustees, including all those to arise under contracts in course of fulfillment, a list is hereunto annexed marked B.

In conclusion, I may add that if the means be promptly furnished, the Bridge can be entirely finished and open for public travel, and begin to be remunerative in the summer or fall of 1879. True economy, in the prosecution of the work, is to push it forward, with all the speed that a due regard to its proper construction will permit. Money as well as land and materials are now cheap, and will combine to reduce its cost below the estimate; while, on the other hand, delay will add to the cost by the accumulation of interest on the amount already expended in proportion to its extent. And I may be allowed further to say that this work is not, as sometimes urged, one of a purely sectional character. It will open a new thoroughfare for half a million of people to the centre of business and intelligence in this great metropolis of the nation—where it is already fixed by the erection of public buildings both national and municipal, and by grand edifices devoted by private enterprise to financial, telegraphic and journalistic purposes. It will practically unite the two cities, and contribute to the convenience, comfort and safety of that portion of the community, which will use it in their daily avocations, and be a worthy monument of the foresight as well as the greatness of New York. If made perfectly free for travel it will yet be self sustaining, and without expense in the future for its maintenance, by receipts of the railway, which will carry over it for a trifling charge, such as may be disposed to avail themselves of it; while the entire cost to the City of New York will not, in any possible contingency, including

all the "vast sums" already contributed, amount to five millions of dollars.

Respectfully submitted,

HEN: C. MURPHY.

A.

1. LIST OF ORIGINAL SUBSCRIBERS TO THE CAPITAL STOCK OF THE NEW YORK BRIDGE COMPANY.

NAMES.	SHARES.
Henry C. Murphy.....	100
Isaac Van Anden.....	200
William Marshall.....	50
Seymour L. Husted.....	200
Samuel McLean.....	50
Arthur W. Benson.....	20
Martin Kalbfleisch.....	200
Alexander McCue.....	100
William M. Tweed.....	560
Peter B. Sweeney.....	560
Hugh Smith.....	560
Henry W. Slocum.....	500
James S. T. Stranahan.....	100
Grenville T. Jenks.....	50
Kingsley & Keeney.....	1,600
John H. Prentice.....	50
William Hunter, Jr.....	50
John W. Lewis.....	50
The City of New York.....	15,000
The City of Brooklyn.....	30,000
Total.....	50,000

2. STOCKHOLDERS OF THE NEW YORK BRIDGE COMPANY, ON THE 14TH OF MAY, 1875,

With the number of shares held by each, and the amount paid thereon, together with the amount refunded to the private stockholders on the 24th of May, 1875, on the purchase of their rights, being principal and interest on the amount paid by them, pursuant to the provisions of the second section of chapter 601 of the Laws of 1874.

INDIVIDUALS.	No. of shares.	Amount paid thereon.	Amount refunded.
Henry C. Murphy.....	240	19,200	\$25,665 74*
Isaac Van Anden.....	250	20,000	25,649 82
William Marshall.....	50	4,500	5,727 96
Samuel McLean.....	50	2,000	2,715 54
Arthur W. Benson.....	20	1,800	2,283 13
Alexander McCue.....	250	20,000	25,562 72
Peter B. Sweeny.....	210	8,400	11,306 09
Hugh Smith.....	315	25,200	30,764 53
Henry W. Slocum.....	250	20,000	25,396 75
James S. T. Stranahan.....	490	39,200	51,241 42†
Kingsley & Keeney.....	1210	88,400	112,799 92
John H. Prentice.....	50	4,500	5,687 24
William Hunter, Jr.....	50	4,000	4,962 44
Demas Barnes.....	100	9,000	11,348 64
William C. Kingsley.....	525	25,200	32,866 98
Seymour L. Husted.....	500	40,000	51,217 26
Daniel A. Bostwick.....	210	8,400	11,306 09
S. Foster Dewey.....	210	8,400	11,306 09
William H. Vanderbilt.....	10	800	
Abram S. Hewitt.....	10	800	
Totals.....	5000	\$349,800	\$447,808 36
CORPORATIONS.			
The City of Brooklyn.....	30,000	\$3,000,000	
The City of New York.....	15,000	1,500,000	
	50,000	\$4,849,800	

* Includes the amount refunded on 10 shares of William H. Vanderbilt, assigned to Henry C. Murphy, subsequently to the 14th of May, 1875, the date of the passage of the law of 1875.

† Includes the amount refunded on 10 shares of Abram S. Hewitt, assigned to J. S. T. Stranahan, subsequently to the 14th of May, 1875.

B.

LIABILITIES JANUARY 1, 1876, FOR MATERIAL AND
WORK.

Collins Granite Co, retained on contract	\$4,564 96
Noone & Madden, " "	13,304 10
Beattie & Dresser " "	2,422 45
Keystone Bridge Co., " "	2,383 37
Beattie & Dresser, for stone delivered.....	704 31
Bodwell Granite Co., " "	25,121 07
Lake Champlain Blue Stone Co., for stone delivered.....	1,412 87
Divine Burtis, Jr., " "	2,369 59
Alexander McCue, bill not yet audited.....	969 99
Edgar M. Cullen, " "	9,527 82
Collins Granite Co., certificate of indebtedness.....	18,514 98
Keystone Bridge Co., " "	5,610 23
Rents to January 1—2 months.....	1,383 33
Salaries and bills due January 1.....	3,084 25
Balance due on salaries to January 1.....	1,539 98
	\$92,913 30

TO PRIVATE STOCKHOLDERS.

Certificates of indebtedness, as per Schedule A, and interest to January 1, 1876.....	\$466,703 38
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MATERIALS TO BE DELIVERED AFTER JANUARY 1, 1876
ON OUTSTANDING CONTRACTS.

Collins Granite Co., stone.....	\$76,235 84
Noone & Madden, " "	64,194 78
Beattie & Dresser, " "	3,674 30
Joseph Brennan, " "	8,575 29
Keystone Bridge Co., iron.....	36,936 25
South Brooklyn Saw Mill Co., lumber.....	600 48
A. W. Shadbolt & Son, cart.....	130 01
	\$190,256 85
	\$749,873 53



